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The Engineer and His Income Tax

TIMELINESS seems a sufficient reason for republishing data which appeared in Proceedings of March, 1926, in regard to the Federal Income Tax as it applies to engineers.

The following interpretations of the law have had the scrutiny of experts and are presented as a possible aid in pointing out deductions that the Government recognizes as legitimate.

State and Municipal Employees

Employees of State and political subdivisions thereof are exempt from tax on incomes received from such States and political subdivisions. This is not to be construed as applying to engineers who act in a consulting capacity, nor has it yet been positively determined with regard to employees of municipally operated utilities.

The law as applicable to 1928 income received from a State or political subdivision differentiates between income received by one who is engaged for full or part time on a governmental function and one who is not so engaged. With water supply engineers the point is disputed by tax officials on the grounds that the supplying of water for domestic or industrial purposes is not a governmental operation, whereas the supplying of water for fire-protection purposes is a governmental operation.

Thus the application of the law depends on the definition of "an essential governmental function". Here the attitude of the U. S. Treasury Department has leaned toward a strict interpretation favorable to the government.

Courts, on the other hand, have usually been more liberal—for instance, they have ruled that salary from a municipally owned railway is exempt. Similarly, service in a highway department, educational institutions, agricultural bureaus and similar offices are generally held to be tax exempt.

Penalty is imposed for failure to make a return or for making a false return, but no penalty is imposed for making incorrect interpretations of law; hence certain engineers in, say, municipal employ and engaged in the supplying of water, will include the income derived as salary from the city on this account and then deduct it as permissible. In cases where the

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A Birthday Party

ON January 31st last, the entire Headquarters Staff was called together in the Board Room for a few minutes, just prior to the lunch hour, for a little birthday party, so to speak.

Two members of the staff, Miss Matilda Steinbrenner and Miss Ida Fredericks, during this calendar year will have completed thirty years' continuous connection with the Society. Both are occupying positions of responsibility and trust, evidence of work well and faithfully performed.

It was to wish them well and to give recognition of the affection held for them by other members of the staff that the party was planned. Each was presented with a bunch of roses to the stems of which were attached envelopes containing an extra check, authorized by the Board of Direction in recognition of their services.

Manual No. 2

WITH more than 13,000 widely distributed members in the Society it is a fact that only through the medium of type and the use of the mails can information be transmitted to the membership.

Delightful contacts are possible at meetings and in the Local Sections. Legislation of great import to the profession may be effected or influenced by acts of the Board of Direction or by committees appointed to carry out its instructions. Service of many kinds may be rendered to individuals or to the profession. Research may be financed and carried out. But information, whether it be a mere announcement or the result of long years of intensive study, can be communicated only as printed matter.

The Year Book has its obvious value as the source of statistical information about the Society and the membership. Transactions form a permanent record of technical matter of historical or reference character, especially of the more monumental contributions. Proceedings is the medium through which information of all kinds is transmitted, and its make-up is worth a moment's consideration.

Proceedings is divided into three portions, each paged separately. Society Affairs, as its name implies, contains information on all subjects in which the Society is engaged. Information in regard to membership changes or prospective changes forms the second part, and the third part is devoted to information on technical matters.

"Manuals", as they have heretofore been called, are a new publication appearing from time to time as a series of "separates" and having the character of a ready reference volume on matters of every-day con-

cern. Two manuals have now been issued, the first on the subject of a Code of Professional Practice and the second on Definitions of Terms Used in Sewerage and Sewage Disposal Practice.

Manuals are not papers and are not reports—these are incorporated in Proceedings. Manuals are thoroughly digested expositions of matter not hitherto collated. Each manual before it can appear as such must proceed through a series of experiences calculated to make it authoritative. It must be drafted by a group, not one man. It must have been discussed and, in the light of that discussion, revised. It must be subjected to a vote or other test of its acceptability and correctness, and, finally, it must have been approved by the Board of Direction. Thus, it is authoritative.

It is from the Technical Divisions that manuals of a technical nature are to be expected and from committees especially appointed that manuals having to do with professional or non-technical matters will evolve. Several are in process from each source. Manual No. 2 was distributed on February 19.

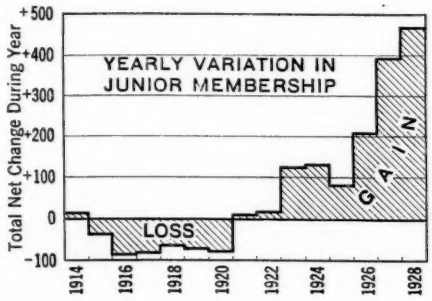
Oldest "Members"

THE list of names published under the heading "Veterans", in Part II of Proceedings for February has aroused much interest. That list was "no respecter of persons", in that it indicated the longest terms of affiliation with the Society, in any grade of membership.

Advantage is taken of this opportunity to acknowledge a clerical error in the previous list. The name of C. Frank Allen was inadvertently omitted in the February issue.

The list presented below has been made up on a different basis, and gives the roll, in order of seniority, of those who have held Corporate Membership for at least fifty years. All have been Members since the dates indicated.

Clemens Herschel, April 21, 1869
William W. Maclay, November 6, 1872
Thomas P. Kinsley, February 5, 1873
John W. Hill, April 5, 1876
William C. Gunnell, February 7, 1877
C. Frank Allen, February 6, 1878
Thomas Rodd, June 5, 1878
C. E. Billin, July 3, 1878
Frederick B. Howard, November 6, 1878



Recent noteworthy growth in Junior membership as compared with the record of former years

Expansion of Junior Membership

THE annual reports of the Board of Direction permit analysis of many phases of Society history. The characteristics of Junior membership growth are outstanding in the report of 1928.

During the past fifteen years there have been three definite stages of development. In 1914 there was a net gain of 24 Junior members. In 1915, and thereafter until 1920, there was a quite uniform net loss of Junior members at an average rate of 65 per year. The average elected during that interval was 107 and the average transferred to a higher grade was 109. There were losses from death and other causes, which brought about the net loss.

In 1920 the Board of Direction authorized the formation of Student Chapters, eight being formed in that year with a total membership of 360. In 1921 the number had grown to 39 Chapters, and in 1922 to 53.

In 1923 the Portland (Oregon) Local Section instituted the practice of sponsoring prizes within the nearby Student Chapters, a practice which was taken up by several other Local Sections. The number of Student Chapters then totaled 65 and during that year and the two following the trend in Junior membership was that of a positive increase, the average number of elections being 219 and the average net increase 104.

In 1926 copies of the Employment Service Bulletin were forwarded in March, April, and May, without charge, to the members of the graduating classes in the Student Chapters. Part II of Proceedings was mailed regularly to all members of the Chapters and there was adopted by the Board of Direction the rule that for those graduates of schools of recognized standing who shall make application for membership in the Society as Juniors within two months of graduation, the equivalent of one year's dues shall be remitted. Two Corporate Member endorsers (instead of five) were required of such graduates.

In 1928 there were 93 Student Chapters with a membership of 4,967 and in that year 653 Juniors were elected. Deducting losses in that grade due to deaths, etc., and transfers to the higher grade, there resulted a net growth in Juniors of 469. Juniors now form 15% of the total membership.

Rules for Writing

SEVERAL years ago Robins Fleming, a structural engineer, formulated a set of rules which he has closely adhered to in his technical writing. These he submits in comment on the subject of "Writer or Reader" discussed in the January, 1929, Proceedings, Part II. Mr. Fleming's rules are:

1. Be sure that you have something worth while to say.
2. Read what others have written on the subject.
3. Have in mind your readers—express yourself in language as simple as you would use in conversation.
4. Avoid irrelevant matter; never try to show how much you know.
5. Be generous with your credits.
6. Give special attention to the introduction and to the conclusion.
7. Bear in mind the logical presentation, sequence of sentences, and clearness. After writing, examine carefully for errors in spelling, grammar, and punctuation.
8. If time permits, lay the manuscript aside for a month; then reread and revise. *Boil it down.*
9. If practicable, have the manuscript examined for correctness by one well acquainted with the subject and for clearness by one who has little or no knowledge of the subject.
10. Be prepared to have the manuscript returned as "not available". It is best not to talk much about it until it has appeared in print.

Belgium and America

A FURTHER chapter in the story of the carillon at Louvain, donated by the engineers of the United States in memory of their confreres who gave their lives in the Great War, was written on January 7 last.

Prince Albert de Ligne, Ambassador of Belgium to the United States, bestowed upon Chairman Edward Dean Adams, of the Committee on War Memorial to American Engineers, the insignia of Commander of the Order of the Crown of Belgium, conferred by His Majesty, Albert, King of Belgium.

About fifty engineers, including among them the Presidents of several of the co-operating Societies and the official delegates to the celebration last July, were present and heard the presentation and acceptance speeches. There were shown also movies of the ceremonies in Louvain.

Words

AMONG the marks that distinguish the real gentleman is a decent respect for the niceties of life, in personal appearance, for example. In a somewhat similar way the intellectual proof of the professional man is shown by exactness of speech.

"Ain't" is not a word, and "it don't make no difference" violates two perfectly sound rules of grammar. These may be condoned as the jargon of the shop or the job, but such a plea does not hold water as applied to written matter.

One most common fault relates to the "number" of certain words, whether singular or plural. "These data are" but never "this data is". A similar rule applies to "strata". "Stadia" is the approved plural form of "stadium"; although it is ordinarily used as an adjective.

Only carelessness accounts for the combination "different than"; for the words imply separate qualities, the first a distinction and the second a comparison. When one says "the il race was at a different elevation an the pond", really one means it as "lower than". Why not say so? he "than" implies a comparison and mediately the reader tries in his ind to find it. One rock may "dif- r from" another, but why not be xplicit—it is heavier, or darker, or ner or smoother.

For such a common word "whose" has ever been an unusual bugbear. Evidently it means "of whom"; but can it mean "of which"? An attempt to be ultra-precise leads to ridiculous expressions such as "This bridge, the immense and deeply dug pneumatic caisson foundations of which, etc." Fortunately modern usage has overcome this handicap and has approved the form "this bridge, whose".

Not so of another common word, "over", meaning "more than". Few people would be confused by the statement that "the temperature was over 90 degrees in the shade"; but suppose the form had been "over 10 degrees below freezing". Occasionally a combination of careless uses leads to the ridiculous as when a certain athletic "gauge jumps over ten pounds". Similar misuse is made of their companions "above" and "below".

Instead of a simple "on", many writers prefer to use the more elaborate "upon", evidently thinking it stylish or "classy"—the same tendency makes them use "transpire" instead of "happen", "residence" instead of "home", "eventuate" instead of "result". The distinction between "on" and "upon" is very simple—exactly the same as between "in" and "into". One denotes rest and the other action. The structure is built "upon" its footings but, once built, it remains "on" its foundation.

Is it exact and is it simple? Those two tests may well be applied to any word used in technical writing.

Year Book Changes

The Year Book is on the press. Effort is made throughout the year to keep the changes of address, etc., which are to be made in the annual volume, well in hand.

From December 1st on, however, comes the concentrated effort of being right up-to-the-minute. To facilitate this, return postals are issued on that date and there results a bountiful crop of replies.

During December of last year and January of this year information was received which necessitates changes with respect to 2122 names in the Year Book. February, of course, has produced yet others.

March Proceedings

BOTH in size and position, the "Digest of Technical Sessions at the 1929 Annual Meeting", takes precedence in the March Proceedings. This is the first issue in which such a résumé could be included as the previous number was already on the press while this meeting was in progress. Members will find in the accounts at least the more important features covered in the sessions and thus overcome in some small measure the disadvantage and possibly the disappointment of failure to attend.

This valuable material has necessarily crowded out technical papers which might otherwise have been included. Space was found, however, for "The Use of Water on Federal Irrigation Projects", by E. B. Debler, Member. Many valuable data are presented in tabular form—the sort of statistics that every irrigation engineer is looking for and seldom finds. Enough descriptive matter has been added to make the treatment clear. Twenty-four projects are covered.

The remainder of the March Proceedings is devoted to 17 discussions on 10 current papers and finally to memoirs of 5 deceased members.

N. B.

ATTENTION is particularly called to pages 565 to 750 of this issue of Proceedings. A distinct innovation is there attempted which it is hoped will be of some measure of value to practically every member of the Society.

Every Society meeting provides a focus for the presentation by authorities of the very latest in many technical matters. This material should be available to the entire membership whether able to attend the meeting or not, and at the earliest practicable minute.

With this thought in mind, a complete résumé of the technical features of the recent Annual Meeting has been developed. Sequence of events, matters of administration, personalities, etc., have been subordinated to as clear and connected a presentation of the important technical developments as it was possible to prepare in brief time and with limited space.

The effort has been that those interested in a particular feature may find it promptly, by topic and sub-

topic, without the necessity of going through matter which to them may be extraneous. Certain reports are reproduced in full. Papers which possibly later may be printed in full are summarized with free use of excerpts from the original text. Explanatory diagrams or tables have been incorporated as much as practicable.

Admittedly the result is not highly theoretical. In fact, the résumé has been drafted deliberately as from the point of view of a busy man wishing to be quickly informed of the high points which will indicate the most modern thought and trends. Analysis, discussion, proof may come later.

Those interested in the Technical Divisions will observe the extent to which these Society agencies contributed to the program. In fact, the entire meeting is a composite of the Technical Divisions and Society Special Committees.

The success of the attempt will be measurable only by its usefulness to members in their daily pursuits.

Pages 565 to 750.

Dallas Meeting

THE Spring Meeting of the Society, to be held at Dallas, Texas, is only a little way in the future—April 24, 25, and 26.

Welcome news from the railroads is to the effect that the "certificate plan", whereby if a certain number of certificates are turned in there is permissible the purchase of return ticket for half fare, is now to be made operative on the presentation of only 150 certificates. The requirement previously has been 250 certificates.

Even with meetings where large attendance was expected there has always been doubt as to the success of the certificate plan. For this reason it has not been attempted in some instances where the local hosts have urged it. To attempt it and to fail to accomplish it might have been viewed as the equivalent of a deception practiced upon those who were thus encouraged.

Excursion rates, automobile parties, limited fare train exceptions, selling and return date restrictions, and the forgetfulness of members have all combined to result in a less number of certificates being turned in than might be expected.

However, at Dallas it seems as if 150 should be secured, and request has been made of the railroads for permission to attempt it.

Indian Mounds

THE recent discovery of Indian mounds in Wisconsin, or at least the press reports in regard to them, which E. O. Keator, Associate Member, forwards, contributes light on a question that has exercised engineering minds for generations; namely, the shrinkage of earthwork.

Mr. Keator calls attention to the fact that more damp earth can be rammed back in a hole than came out of it—and this applies to almost any kind of soil. Also, that loose dry material does not settle to its original volume within any known period of time.

It seems that the Nichols Mound, 12 ft. high and 90 ft. long, showed interesting details of Indian methods. Evidently, the material was carried in baskets. What is more amazing, however, each load as dumped remained intact, and after several hundred years has now been revealed as a separate clod, one to a basket. Whatever the consolidation through the ages, it had not destroyed the integrity of each basketful as dumped. In fact, it was even claimed (in the newspaper) that the arrangement should clearly show how many Indians labored in making the mound.

The Engineer and His Income Tax

(*Continued from page* 1)

question of including or not including the salary received from such a source makes doubtful the necessity for making any return at all, it would be well to act in conformity with a rule from the head of the department.

Society Dues

Dues to charitable and professional organizations not run for profit are among the deductions permitted before computing the tax. This includes all the Society dues paid during the taxable year. Payment for compounding dues in advance (as authorized by the Constitution of the Society, or according to the plan for Paid-Up Dues) is also considered to be deductible. Such reductions apply to the calendar year in which the payment was made. In the Income Tax Blank, entry for this amount should be made under business expense.

Supplies, Etc.

Engineers may claim as deductions the cost of supplies used in the practice of the profession, expenses paid in the operation and repair of automobiles used in making professional calls, subscriptions to professional journals, the rent paid for office rooms, the expense of the fuel, light, water, telephone, etc., used in such offices, and the hire of office assistants. Amounts currently expended for books, furniture, and professional instruments and equipment, the useful life of which is short, may also be deducted.

Bad Debts

Bad debts are deductible, the only question involved being the determination of the fact that they are unrecoverable. Conversely, any bad debt, which has been charged off and taken as a deduction and is later paid, becomes taxable as income.

Other Deductions

Among the deductible items often overlooked may be mentioned: Automobile license fees; chauffeur's license; bonus to employees when paid as additional compensation and not made as a gift; all State taxes, including State income tax; various other taxes, such as those on club dues, theatre or opera tickets, stock transfers, personal property, and residence owned, but not Federal Income Tax; traveling expenses, such as railroad fares, meals, and lodging, if the trip is solely for business purposes; and entertainment, provided the taxpayer can show evidence that amounts expended for this purpose were spent upon prospective clien

A precept for Engineers to paste in their hats:

"IT DOESN'T PAY TO BE TOO BUSY TO ENJOY THE FRUITS OF YOUR LABOR."